

Claims

[c1] What is claimed is:

1. An apparatus for positioning a printed circuit board within an electronic chassis, the apparatus comprising:
a lever coupled to a first end of the printed circuit board, the lever being moveable between a first position and a second position to enable a connector mounted on a second end of the printed circuit board to mate with a backplane connector mounted on the electronic chassis;
and
a rod having a first end coupled to the lever and a second end coupled to the printed circuit board.

[c2] 2. The apparatus according to claim 1, wherein the lever further comprises a mechanical pivot joint including an upper cam and a lower cam to contact the electronic chassis when the lever is moved from the first position to the second position.

[c3] 3. The apparatus according to claim 2, wherein the mechanical pivot joint, a rod pivot which couples the second end of the rod to the printed circuit board and lever pivot which couples the first end of the rod to the lever are arranged to latch the printed circuit board within the

electronic chassis when the lever is in the second position.

- [c4] 4. The apparatus according to claim 1, wherein a holder is coupled to a side of the printed circuit board and the second end of the rod is coupled to the holder.
- [c5] 5. The apparatus according to claim 4, wherein the lever further comprises a semicircular slotted guide that mechanically cooperates with a pin mounted on the holder to guide the movement of the lever.
- [c6] 6. The apparatus according to claim 1, wherein the lever further comprises a swell to contact the electronic chassis when the lever is moved from the second position to the first position during extraction.
- [c7] 7. The apparatus according to claim 1, wherein the electronic chassis further comprises a pin guide adapted to engage a pin hole located near the connector mounted on the second end of the printed circuit board.
- [c8] 8. The apparatus according to claim 7, wherein the pin guide is attached to the backplane.
- [c9] 9. The apparatus according to claim 1, wherein the electronic chassis further comprises a backplane onto which the backplane connector is attached.

[c10] 10. An apparatus for positioning a printed circuit board within an electronic chassis, the apparatus comprising:
a first lever coupled to a first end of the printed circuit board, the first lever being moveable between a first position and a second position to enable a connector mounted on a second end of the printed circuit board to mate with a backplane connector mounted on the electronic chassis;
a first rod having a first end coupled to the first lever and a second end coupled to a first side of the printed circuit board;
a second lever coupled to the first end of the printed circuit board, the second lever being moveable between a first position and a second position to enable the connector mounted on the second end of the printed circuit board to mate with the backplane connector mounted on the electronic chassis; and
a second rod having a first end coupled to the second lever and a second end coupled to a second side of the printed circuit board.

[c11] 11. The apparatus according to claim 10, wherein a first holder is coupled to the first side of the printed circuit board and the second end of the first rod is coupled to the first holder; and
a second holder is coupled to the second side of the

printed circuit board and the second end of the second rod is coupled to the second holder.

[c12] 12. A method for positioning a printed circuit board within an electronic chassis, the method comprising the steps of:

providing a lever coupled to a first end of the printed circuit board, the lever being moveable between a first position and a second position to enable a connector mounted on a second end of the printed circuit board to mate with a backplane connector mounted on the electronic chassis, the lever further comprising a mechanical pivot joint including an upper cam and a lower cam to contact the electronic chassis when the lever is moved from the first position to the second position;

providing a rod having a first end coupled to the lever and a second end coupled to the printed circuit board;

and

arranging the mechanical pivot joint, a rod pivot coupling the second end of the rod to the printed circuit board and a lever pivot coupling the first end of the rod to the lever, to latch the printed circuit board within the electronic chassis when the lever is in the second position.

[c13] 13. The method according to claim 12, further comprising coupling a holder to a side of the printed circuit

board and the second end of the rod is coupled to the holder.

- [c14] 14. The method according to claim 12 wherein the lever further comprises a semicircular slotted guide that mechanically cooperates with a pin mounted on the holder to guide the movement of the lever.
- [c15] 15. The method according to claim 12 wherein the lever further comprises a swell to contact the electronic chassis when the lever is moved from the second position to the first position during extraction.
- [c16] 16. The method according to claim 12 wherein the electronic chassis further comprises a pin guide adapted to engage a pin hole located near the connector mounted on the back end of the printed circuit board.